CLAIMS:

1. A continuous belt casting apparatus, comprising a casting cavity, at least one flexible metal belt having an elongated casting surface passing through and at least partially defining the casting cavity, a motor for rotating said at least one metal belt in a longitudinal direction of said casting surface whereby said casting surface passes through said casting cavity in said longitudinal direction, and a molten metal supply device adapted to deliver molten metal continuously to the casting cavity, whereby molten metal supplied to the casting cavity is solidified and removed as a continuous strip ingot from said casting cavity by rotation of said at least one belt, wherein said casting surface is provided with a plurality of grooves oriented in substantially the same direction, and wherein said plurality of grooves impart a surface roughness (R_a) to the casting surface, said surface roughness (Ra) being in the range of 18 to 80 micro-inches (0.46 to 2.0 micrometers).

2. The apparatus of claim 1, wherein the roughness (Ra) of the casting surface is in a range of 18 to 65 micro-inches (0.46 to 1.65 micrometers).

3. The apparatus of claim 1, wherein the roughness (Ra) of the casting surface is in a range of 25 to 45 micro-inches (0.64 to 1.14 micrometers).

4. The apparatus of claim 1, wherein said at least one casting belt is made of copper or a copper alloy.

5. The apparatus of claim 1, wherein said at least one casting belt is made of aluminum or an aluminum alloy.

6. The apparatus of claim 1, wherein the casting belt is made of steel.

7. The apparatus of claim 1, wherein the grooves are oriented in a direction within 45 degrees of the longitudinal direction of the casting surface.

8. The apparatus of claim 1, wherein the grooves are oriented substantially in the longitudinal direction of the casting surface.

9. The apparatus of claim 1, being a twin belt caster provided with two belts.

10. The apparatus of claim 1, including a supply device adapted to supply an at least partially volatile liquid parting agent to said casting surface before said casting surface contacts molten metal in the casting cavity.

11. The apparatus of claim 10, further including a removal device adapted to remove said parting agent from said casting surface after said casting surface exits said casting cavity and separates from said continuous strip ingot.

12. The apparatus of claim 1, including means for applying coolant to a reverse side of said metal belt as it passes through the said casting cavity.

13. A method of casting metal to form a continuous strip ingot, which comprises forming a casting cavity by providing at least one flexible metal belt having an elongated casting surface with the casting surface passing through and at least partially defining the casting cavity, continuously supplying molten metal to the casting cavity and rotating the belt in a longitudinal direction of the casting surface to draw said molten metal through the casting cavity and to remove from the cavity a solidified strip ingot formed as said molten metal solidifies in the casting cavity, wherein said casting surface is provided with a plurality of grooves

oriented substantially in the same direction, and wherein said casting surface is provided with a plurality of grooves that impart a surface roughness (R_a) to the casting surface, said surface roughness (Ra) being in the range of 18 to 80 micro-inches (0.46 to 2.0 micrometers).

14. The method of claim 13, wherein the casting surface is provided with grooves that impart a surface roughness (Ra) to the casting surface in a range of 18 to 65 micro-inches (0.46 to 1.65 micrometers).

15. The method of claim 13, wherein the casting surface is provided with grooves that impart a surface roughness (Ra) to the casting surface in a range of 25 to 45 micro-inches (0.64 to 1.14 micrometers).

16. The method of claim 13, which comprises providing said at least one casting belt made of copper or a copper alloy.

17. The method of claim 13, which comprises providing said at least one casting belt made of aluminum or an aluminum alloy.

18. The method of claim 13, which comprises providing said at least one casting belt made of steel.

19. The method of claim 13, which comprises employing as said casting surface a surface on which said plurality of grooves is oriented in a direction within 45 degrees of the longitudinal direction of the casting surface.

20. The method of claim 13, which comprises employing as said casting surface a surface on which said plurality of grooves is oriented substantially in the longitudinal direction of the casting surface.

21. The method of claim 13, which comprises providing two belts to define said casting cavity.

22. The method of claim 13, which comprises supplying molten aluminum or aluminum alloy to said casting cavity as said molten metal.

23. The method of claim 13, which further comprises supplying an at least partially volatile liquid parting agent to said casting surface before contacting said casting surface with said molten metal.

24. The method of claim 23, which further comprises removing said parting agent from said casting surface after said casting surface exits said casting cavity and separates from said continuous strip ingot.

25. The method of claim 13, which further comprises applying coolant to a reverse side of said belt as it passes through said casting cavity.

26. A casting belt adapted for use in a continuous belt caster, said casting belt comprising a flexible metal belt having an elongated casting surface provided with a plurality of grooves oriented in substantially the same direction, and wherein said plurality of grooves impart a surface roughness (R_a) to the casting surface, said surface roughness (Ra) being in the range of 18 to 80 micro-inches (0.46 to 2.0 micrometers).

27. The casting belt of claim 26, wherein the roughness (Ra) of the casting surface is in a range of 18 to 65 micro-inches (0.46 to 1.65 micrometers).

28. The casting belt of claim 26, wherein the roughness (Ra) of the casting surface is in a range of 25 to 45 micro-inches (0.64 to 1.14 micrometers).

29. The casting belt of claim 26, wherein said belt is made of copper or a copper alloy.

30. The casting belt of claim 26, wherein said belt is made of aluminum or an aluminum alloy.

31. The casting belt of claim 26, wherein said belt is made of steel.

32. The casting belt of claim 26, wherein the grooves are oriented in a direction within 45 degrees of the longitudinal direction of the casting surface.

33. The casting belt of claim 26, wherein the grooves are oriented substantially in the longitudinal direction of the casting surface.